

CLAIMS

What is claimed is:

1. A method comprising:
disabling a data integrity function of a first data packet, said data integrity function capable of determining whether data within said first data packet is valid;
calculating data integrity information for each of a plurality of independent data segments to be transmitted within said data packet; and
transmitting said plurality of independent data segments and said data integrity information within said first data packet.
2. The method as in claim 1 wherein said data integrity information is a checksum.
3. The method as in claim 1 wherein said data integrity function is a checksum function.
4. The method as in claim 1 wherein said first data packet is a User Datagram Protocol ("UDP") packet.
5. The method as in claim 1 wherein said independent data segments are GSM-AMR audio frames.

6. The method as in claim 4 wherein disabling said data integrity function of said first data packet comprises setting a checksum of said first data packet to zero.

7. The method as in claim 1 further comprising:
receiving said first data packet at a client; and
determining whether any of said independent data segments are corrupt based on said data integrity information; and
discarding any independent data segments which are corrupt.

8. The method as in claim 7 wherein determining whether any of said independent data segments are corrupt further comprises
recalculating said data integrity information for each of said plurality of independent data segments; and
comparing said recalculated data integrity information with said transmitted data integrity information to determine whether any of said independent data segments are corrupt.

9. An apparatus comprising:
a data integrity calculation module for calculating data integrity information for a plurality of data segments;

a packet generation module for encapsulating said plurality of data segments and associated data integrity information within a data packet and disabling a data integrity function of said data packet; and

a transmission module for transmitting said data packet over a network to a destination.

10. The apparatus as in claim 9 wherein said data integrity information is a checksum.

11. The apparatus as in claim 9 wherein said data integrity function is a checksum function.

12. The apparatus as in claim 9 wherein said data packet is a User Datagram Protocol ("UDP") packet.

13. The apparatus as in claim 9 wherein said data segments are GSM-AMR audio frames.

14. The method as in claim 12 wherein disabling said data integrity function of said data packet comprises setting a checksum of said first data packet to zero.

15. A method comprising:

providing a UDP datagram, the UDP datagram having a header and a payload, the payload comprised of a plurality of independent data segments, the header comprising a source port field, a destination port field, a length field, and a datagram checksum;

setting the datagram checksum to zero; and

adding a checksum to each independent data segment in the payload.

16. The method of Claim 15, further comprising:

sending the modified datagram to a destination port.

17. A machine-readable medium having program code stored thereon which, when executed by a machine, cause said machine to perform the operations of:

disabling a data integrity function of a first data packet, said data integrity function capable of determining whether data within said first data packet is valid;

calculating data integrity information for each of a plurality of independent data segments to be transmitted within said data packet; and

transmitting said plurality of independent data segments and said data integrity information within said first data packet.

18. The machine-readable medium as in claim 17 wherein said data integrity information is a checksum.

19. The machine-readable medium as in claim 17 wherein said data integrity function is a checksum function.

20. The machine-readable medium as in claim 17 wherein said first data packet is a User Datagram Protocol ("UDP") packet.

21. The machine-readable medium as in claim 17 wherein said independent data segments are GSM-AMR audio frames.

22. The machine-readable medium as in claim 20 wherein disabling said data integrity function of said first data packet comprises setting a checksum of said first data packet to zero.

23. The machine-readable medium as in claim 17 including program code which causes said machine to perform the additional operations of:

receiving said first data packet at a client; and

determining whether any of said independent data segments are corrupt based on said data integrity information; and

discarding any independent data segments which are corrupt.

24. The machine-readable medium as in claim 23 wherein determining whether any of said independent data segments are corrupt further comprises

recalculating said data integrity information for each of said plurality of independent data segments; and

comparing said recalculated data integrity information with said transmitted data integrity information to determine whether any of said independent data segments are corrupt.

for the purpose of the present invention